****DRAFT****

# Fire Regime Condition Class (FRCC) Interagency Handbook Reference Conditions

**Modeler**: Bruce Davenport **Date: 5/28/04** **PNVG Code: OKHK3**

**Potential Natural Vegetation Group: Western Mesophytic Forest**

**Geographic Area:** Occurring under suitable conditions in areas corresponding to Kuchler types 100 and 111; primarily in the Interior Low Plateau, southern Central Lowland, Ozark Plateaus, and Ouachita physiographic provinces, but also in the loess hills of the northern Coastal Plain. Includes parts of Alabama, Kentucky, Tennessee, Indiana, Illinois, Ohio, Missouri, Arkansas, Oklahoma, and Mississippi

**Description**: Found on a wide range of topographic positions, including drier sites than mixed mesophytic forests, distribution is nonetheless influenced by local conditions affecting moisture and fertility. Generally, from east to west, that distribution becomes "more and more limited in extent and more dependent on very favorable habitat conditions" (Braun, 1950). Typically oak-dominated, western mesophytic forests may still include almost any of the species associated with mixed mesophytic communities, except yellow buckeye.

**Fire Regime Description:** Fire Regime Group III, infrequent, primarily low intensity surface fire with rare mosaic or replacement fire. Mean fire return interval (MFI) is about 40 years with wide year-to-year and within-type variation related to moisture cycles, degree of sheltering, and proximity to more fire-prone types. Anthropogenic fire considered and further contributes to within-type MFI variation.

**Vegetation Type and Structure**

| Class* | Percent of Landscape | Description |
|---|---|---|
| **A**: post replacement | 10 | 0-15 years. Sprouts, seedlings, saplings, primarily of major overstory species in gaps created by wind, lightning, insect/disease, and less frequently, fire. Intolerant species (e.g., PRSE, LITU) confined to multiple-tree gaps. |
| **B**: mid-seral closed | 30 | 15–79 years. Dominated by young to early mature canopy with some obligate mid and understory species. Set B/C break at 90%. Open/closed condition a function of understory/midstory development more than canopy closure. At least two layers in closed dependent on age. |
| **C**: mid- seral open | 10 | 15-79 years. Same overstory as B but without well-developed midstory and with a generally low or minimal understory. |
| **D**: late- seral open | 30 | 80-200+ years. Early to late mature canopy that may exceed 100 feet in height. Dominant overstory species variable by location and stand history. D/E break 90%. Open/closed more dependent on presence or absence of multi-layered vertical structure. Closed with single-layer main canopy without continuous midstory or robust understory. |
| **E**: late- seral closed | 20 | 80-200+ years. Same canopy as D with well developed lower layers containing canopy species and often others confined at those levels. |
| Total | 100 | |

*Formal codes for classes A-E are: AESP, BMSC, CMSO, DLSO, and ELSC, respectively.

**Fire Frequency and Severity**

| Fire Severity | Fire Frequency (yrs) | Probability | Percent, All Fires | Description |
|---|---|---|---|---|
| Replacement Fire | 475 | .002 | 8 | |
| Non-Replacement Fire | 43 | .023 | 92 | |
| All Fire Frequency* | 40 | .025 | 100 | |

*All Fire Probability = sum of replacement fire and non-replacement fire probabilities. All Fire Frequency = inverse of all fire probability (previous calculation).

**References**


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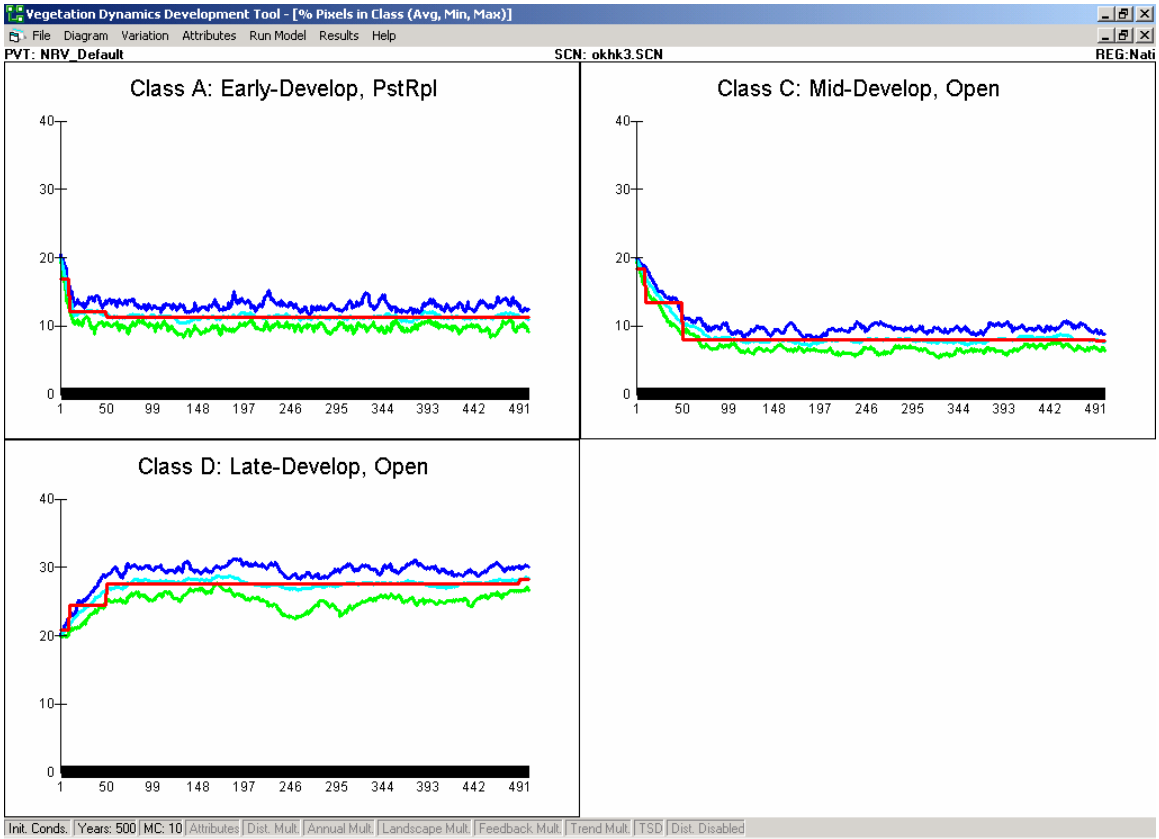
## VDDT File Documentation: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Class C: Mid-Develop, Open
Class D: Late-Develop, Open
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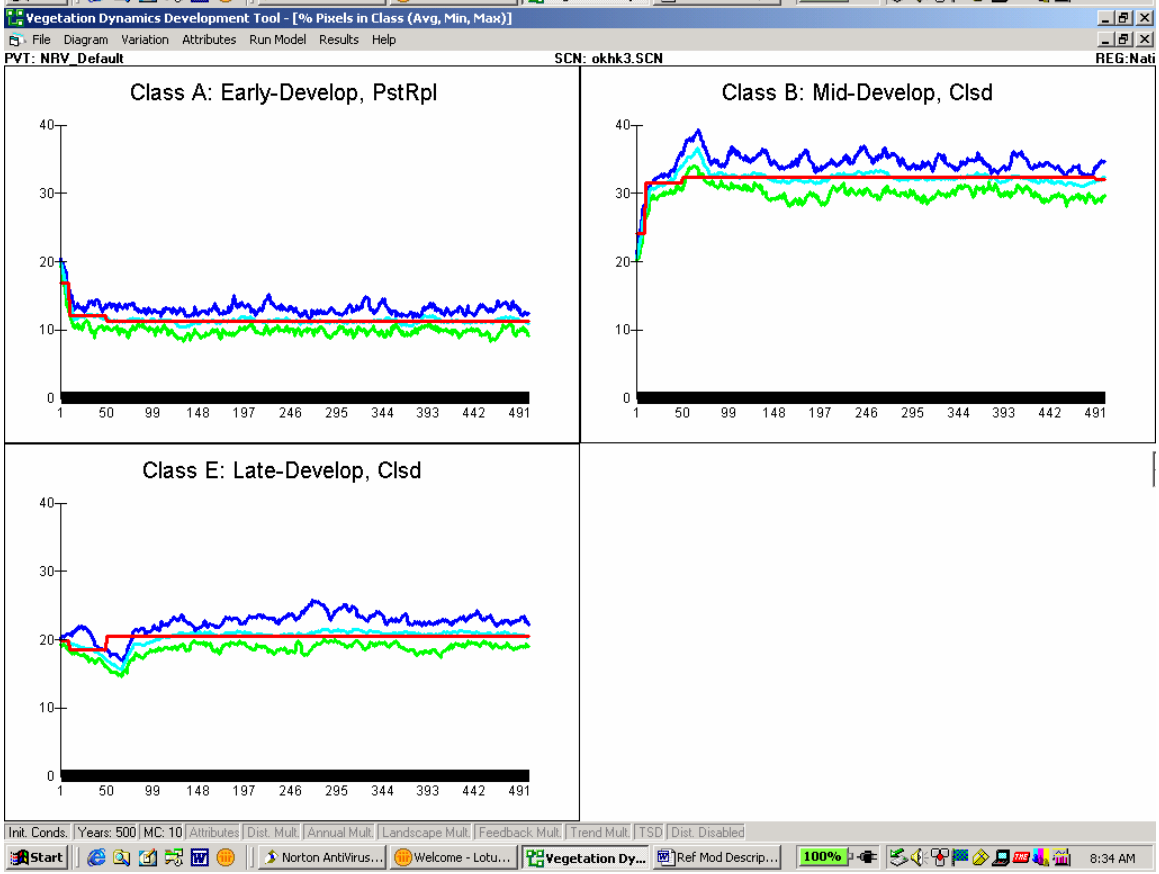
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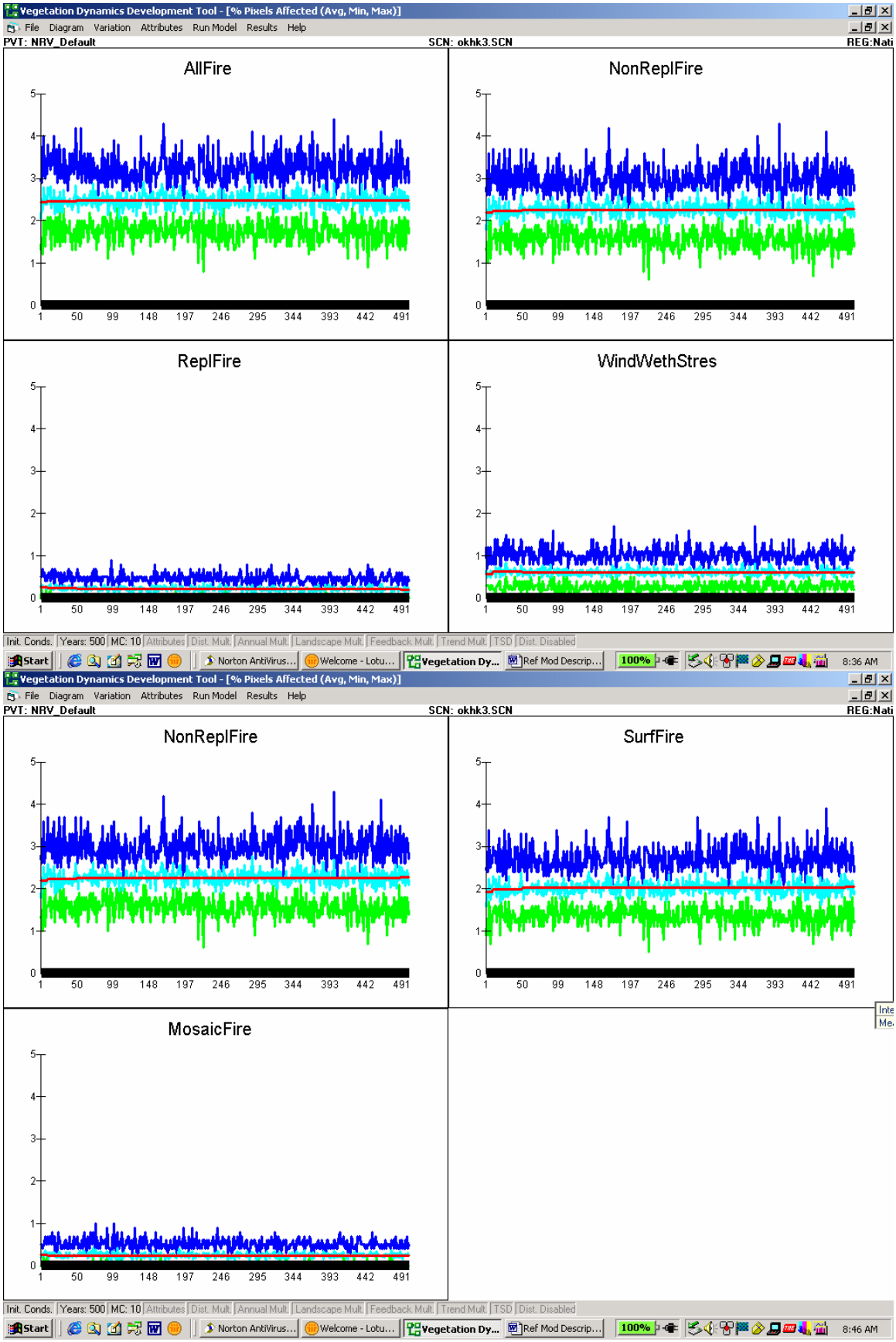
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